



Air Conditioning Contractors of America

*The Essential Partner
For Contractor Excellence*

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Reference: Proposed Building Standards of the Department of Housing and Community
Development Regarding the Adoption by the Reference of the 2006 Uniform
Mechanical Code with Proposed Amendments

Dear Mr. Hensler,

The Air Conditioning Contractors of America (ACCA) is the national association representing heating, ventilating, and air conditioning (HVAC) contractors in the U.S. ACCA provides technical guidance to its members on a variety of subjects. Duct sizing is one of the fundamental design processes in which ACCA has demonstrated expertise in both residential and light commercial buildings. ACCA publishes and maintains numerous manuals, a number of which are recognized by the American National Standards Institute (ANSI) recognized them as U.S. National Standards.

ACCA would like to comment on the following modification that the California Housing and Community Development proposed for the California Building Code:

Chapter 6

Duct Systems

Note Adopt entire chapter as amended.

601.2 Sizing Requirements. Duct systems used with blower-type equipment that are portions of a heating, cooling, absorption, evaporative cooling, or outdoor air ventilation system shall be sized in accordance with Chapter 17, or by other approved methods.

Exception: For applications listed in Section 108.2 regulated by the Department of Housing and Community Development, duct sizing calculations are not required for systems which do not require outside air.

1. **ACCA strongly recommends that the California Building Code remove the noted exception.**
2. ACCA was the proponent for this submission to the Uniform Mechanical Code. The original intent was to recommend the use of duct sizing to achieve objectives associated with occupant comfort, indoor air quality, energy efficiency, and ventilation. The application noted in the monograph of the submission is only one of many reasons for requiring duct sizing procedures.

6. Energy efficiency performance ratings are provided by the Gas Appliance Manufacturers Association and the Air conditioning and Refrigeration Institute. The duct distribution systems must be properly designed and installed to achieving these ratings.

7. Case studies demonstrate that improper duct sizing practices are not being followed. Many contractors take great care to plan the duct layout. However they guess the duct size when they follow a “rule of thumb”. The subsequent incorrect installation results with inadequate airflow. A recent study for the American Council for Energy Efficient Economy (ACEEE) found the consolidated findings of “seven studies suggest that an average of 70% of all homes have inadequate airflow.” [Neme, Chris, et al. 1999. *Energy Savings Potential from Addressing Residential Air Conditioner and Heat Pump Installation Problems*. Washington D.C. American Council for Energy Efficient Economy].

To safeguard consumers, comply with original manufacturer’s instructions, and help minimize energy usage, California should require prescriptive approaches for duct sizing. ACCA recommends accepting the chapter as written.

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Regards,



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cc: George Rodriguez, Chapter President, CALACCA